

STAMP AND RETURN

RECEIVED & INSPECTED

APR 14 2006

EGG MAILROOM

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

2006 APR 14 P 1:55

KQED, Inc.)
Licensee of)
KQEI (FM-Ed), [89.3 FM])
North Highlands, CA)
Facility I.D. No. 20791)

RECEIVED

COMPLAINT OF WIDESPREAD DESTRUCTIVE INTERFERENCE
FROM HYBRID IN-BAND / ON-CHANNEL DIGITAL RADIO

To: Chief, Spectrum Enforcement Division,
Enforcement Bureau

Nevada City Community Broadcast Group, licensee of KVMR (FM-Ed), Nevada City, California (herein "KVMR" or "Complainant"), by its attorney, here submits a formal complaint of destructive interference, resulting from the activation of hybrid in-band on-channel digital transmissions at KQEI-FM (Ed), North Highlands, CA.

1. Background

KQEI-FM notified the Commission that it would inaugurate digital hybrid transmissions by letter dated April 7, 2005 (File No. BDNED-2005 0411ABW). KQEI at 89.3 Mhz is first adjacent below KVMR at 89.5 Mhz, and the stations are closely spaced at 46.32 miles ("FM Query" data).

Almost immediately KVMR began to experience widespread complaints of new interference, from both home and car radio listeners.

The two station general managers and their engineers opened a discussion on the problem. It was generally agreed (a) that the KQEI transmissions were the source of the new interference and loss of service; (b) that no information had yet been developed that KQEI was operating in violation of any of the digital transmission standards; (c) that KQEI was not willing to cease digital transmission, so that KVMR's only recourse would be at the Commission. On January 24, 2006, KVMR by letter formally requested that KQEI cease digital transmissions, Attachment A herewith. The licensee declined to do so, by responsive letter, January 27, 2006, Attachment B.

2. Analysis of Listener Complaints

Attachment C herewith is documentation for a total of 212 interference complaints, approximately from May of 2005 until February 28, 2006. The initial high volume consisted of logged telephone calls, e.g. Nos. 007 – 010. Some listeners made note of interference by comments on the form they sent in with their pledge, Nos. 12, 13. The interference problem was mentioned in the program guide, with a suggestion to e-mail KVMR engineering. Immediately the station began to receive a large

volume of e-mails. Some of these provide a wealth of location and context data, for example: Nos. 022, 032, 055, 059, 089, 184, 212.

It is not easy for a listener positively to identify a source of interference, especially in the FM service where multipath can become a factor. Several e-mails suggested that it was KVMR's own activation of digital transmission that degraded the signal, see Nos. 095, 164. Yet those complaints were arriving at a time that KVMR was not transmitting in digital. KQEI is co-owned with the major San Francisco NPR member, KQED. The stations are simulcast, with local breakaways for traffic. Few listeners are even aware of the existence of digital radio channels, KQEI's or any other. Nevertheless, a few listeners pinpointed KQEI as the source of interference, see Nos. 144, 161; or "another station (San Francisco?)" No. 036. We submit that nearly all these complaints of degraded reception since May, 2005, in actual fact are the direct result of KQEI digital transmissions.

Many of the complaints are one-liners with but little information, "We cannot get the signal," No. 158. Nearly all provide some useful context of time, place, or home versus car: No. 060, 070, 084. Many are from loyal listeners who regard the impaired signal as a personal loss. From No. 014:

Dear KVMR Staff,

I am writing to let you know that I am no longer able to enjoy your

radio station here in Sacramento. For years, my family & I have listened to your wonderful news programs, music programs and event announcements.

Unfortunately, another station now interferes with our reception of KVMR. If there is a regulatory agency that I can write to about *this*, please let me know.

We are heartbroken about the loss of KVMR in our lives.

Best wishes to you,

3. Legal Basis for the Complaint

FM stations are subject to an emission mask to assure that they are reasonably confined within the 200 kHz channel width.¹ This is not possible in hybrid IBOC operation, where the digital component operates at 20 dB below the level of the analog carrier. As a result, the KQEI hybrid operation is subject to Section 73.317 of the Rules and Regulations:

73.317 FM transmission system requirements.

(a) FM broadcast stations employing transmitters authorized after January 1, 1960, must maintain the bandwidth occupied by their emissions in accordance with the specification detailed below. FM broadcast stations employing transmitters installed or type accepted before January 1, 1960, must achieve the highest degree of compliance with these specifications practicable with their existing equipment. In either case, should harmful interference to other authorized stations occur, the licensee shall correct the problem promptly or cease operation.

1 "Any emission appearing on a frequency removed from the carrier by between 120 kHz and 240 kHz inclusive must be attenuated at least 25 dB below the level of the unmodulated carrier. Compliance with this requirement will be deemed to show the occupied bandwidth to be 250 kHz or less." Sec. 73.317 (b), 47 C.F.R. Sec. 73.317(b).
"Any emission appearing on a frequency removed from the carrier by between 120 kHz and 240 kHz inclusive must be attenuated at least 25 dB below the level of the unmodulated carrier." Section 73.317 (c), 47 C.F.R. Sec. 73.317(C)

It is the obligation of KQEI to correct the interference problems documented here, or cease its digital operation.

The rule by its terms addresses all interference caused by the offending station, whether inside or outside the affected station's protected contour. It must be so interpreted, because the protected contour as designed by the Commission is the product of an interference analysis between stations otherwise in full compliance with the technical rules, including Section 73.317. Out-of-band emissions are not part of that balance of interests, but represent a specific rule violation by themselves.

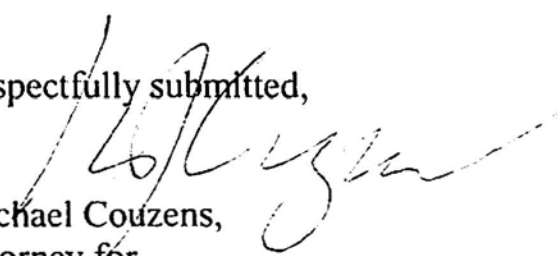
The pending Digital Audio Broadcasting rule making did not repeal Section 73.317 nor is such repeal proposed. In the First Report and Order, para. 49, the Commission sought comment only on the proper requirement of attenuation in an all-digital mode, where there was no analog carrier from which attenuation could be measured. The Commission stated, “. . . it may be preferable to set an absolute level for digital carriers that could be calculated without reference to analog,” First Report and Order in MM Docket No. 99-325, Rel. October 11, 2002, para. 49. If so, Complainant submits it would be arbitrary to choose any attenuation guideline without regard to destructive interference caused by emissions out of channel. For this reason, compliance with the technical standards for IBOC will not

suffice to overcome the complaint presented here.

4. Relief Requested.

KVMR requests that the Enforcement Bureau promptly investigate the evidence presented here of substantial, widespread destructive interference from the digital operations of KQEI, North Highlands, CA. Should investigation determine that the interference is due to KQEI's digital transmission, KQEI should be ordered to cease IBOC transmission until a solution to the problem is found. Balancing the equities, the loss of existing audience by KVMR far outweighs any loss of KQEI's miniscule digital audience.

Respectfully submitted,



Michael Couzens,
Attorney for
Nevada City Community Broadcast Group,
Licensee of KVMR (FM-Ed), [89.5 FM]
Nevada City, CA

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April 13, 2006.

STAMP AND RETURN

Attachment A.

ADMITTED IN
CALIFORNIA AND IN THE
DISTRICT OF COLUMBIA

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January 24, 2006

By Facsimile to (415) 553-2241 and by First Class Mail

Jo Anne Wallace, Vice President and General Manager
KQED-FM
2601 Mariposa Street
San Francisco, CA 94110-1426

Re: IBOC at KQEI (FM)
North Highlands, CA

Dear Joanne:

On behalf of the licensee of KVMR (FM), Nevada City, CA, I want to begin by thanking you and KQED staff for your cooperation in tracking down interference problems caused by the advent of IBOC transmissions over KQEI, North Highlands (Sacramento). These problems, unfortunately, *have not abated*, and KVMR must proceed to an action stage, at the FCC or through any other remedy it may have. We here make a formal request that you cease digital transmissions.

We have determined, and your technical staff apparently agrees, that the commencement of the iBiquity digital carrier on KQEI caused and continues to cause massive interference for established listeners to KVMR, both mobile and in-the-home. The interference is most intense near your transmitter location, but many other communities are mentioned in our dozens of logged complaints, including Rio Linda, Natomas, Citrus Heights, Fair Oaks, Rancho Cordova, Carmichael and Davis. There are multiple complaints from North Highlands, and from Downtown, South and West Sacramento. As you know, people who take the trouble to call or write with their complaints are always representative of a larger group of persons affected.

Our two stations are first-adjacent and are short-spaced to near the maximum ever permitted for each class in FCC Rules and Regulations. It stands to reason that a digital format concentrating the energy at the edges of the signal is

Jo Anne Wallace
January 24, 2006
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most likely to affect the first adjacency as it does here. We have yet to determine the scope of possible interference within KVMR's protected contour. But it should not be assumed that we are lacking rights outside that contour, for example in the communities I mention above. It is a legal question whether the implementation of digital is a material change that should negate KQEI's grandfathered privilege of short spacing.

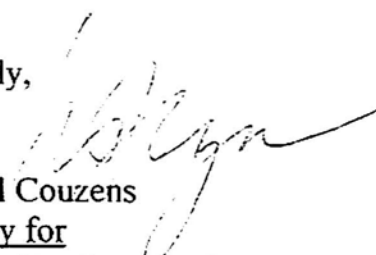
We are unable to determine whether the source of destructive interference to KVMR is the advent of digital on KQEI alone, or whether it is a product of KQEI transmitting two separate digital streams under an experimental authorization (FCC Letter authorization dated May 31, 2005), or possibly some combination. That grant is conditional: "This authority is specifically conditioned on the lack of objectionable interference." We have to assume, unless the contrary is shown by probative evidence, that your experimental operations are causing significant destructive interference to KVMR.

For these reasons, at this time KVMR respectfully requests that you immediately discontinue digital transmissions at KQEI. During our recent conference call on this subject, you and your staff acknowledged that KQED had no information that the digital transmissions on KQEI were being overheard by anyone in the general public. There is no equitable reason for these transmissions to continue, when they are economically damaging to KVMR. Specifically, we are scheduled to begin a fundraising period on Monday, January 30. I would request that your digital transmission cease not later than that date.

In closing I thank you again for your openness and spirit of cooperation. We will need to work together to better understand the sources of this problem, which is a by-product of new technology and is a system-wide issue. You have a mission to continue to serve your listeners and obviously are in no way at fault.

Thank you for your cooperation.

Sincerely,



Michael Couzens
Attorney for
Nevada City Community
Broadcast Group (KVMR)

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Washington, DC 20004-1206

January 27, 2006

Michael Couzens, Esq.
P.O. Box 3642
Oakland, CA 94609

Re: Station KVMR & Station KQEI-FM

Dear Michael:

Jo Anne Wallace has asked me to respond to your letter of January 24th concerning the interference caused to the reception of Station KVMR by the digital operation of Station KQEI-FM. As Jo Anne and others at KQED have indicated in the past, we are sympathetic to the situation facing Station KVMR. No one likes to lose listeners for whatever reason, but particularly when the loss is the result of the actions of other broadcasters.

However, as you are aware, the technical factors which have resulted in the interference to KVMR's reception are well known to the Commission. They have been raised by others in the pending rulemaking looking toward the adoption of operational rules for digital audio broadcasting. Notwithstanding that fact, the Commission has granted FM radio stations, including KQEI, broad authority to commence digital operation without imposing any conditions designed to address your concern. Consequently, KQED is not required to modify its digital operations in order to reduce or eliminate any interference KVMR's listeners may suffer.

Moreover, as we understand it, the bulk of the interference, if not all of the interference, is in areas outside of KVMR's protected contour. Thus, even if the Commission were to impose some limitations, it is highly unlikely that it will require stations such as KQEI to protect KVMR's signal outside of its protected service area.

Finally, while we recognize that the audience for digital radio is still limited, we fully anticipate that it will grow substantially in response to digital audio broadcast operations, such as those at KQEI. Once the public is aware of the benefits of high quality digital radio, we believe it will demand the fidelity and superior service it offers. That will come to pass only through digital operation by FM stations and KQED intends to play a role in bringing that service to the public, just as it has led the way with high definition digital television.

ARNOLD & PORTER LLP

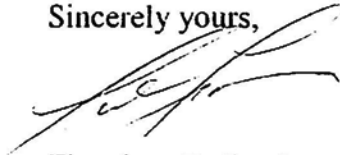
Michael Couzens, Esq.
January 27, 2006
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Accordingly, while KQED is sympathetic to your concerns, we do not believe that we are required to accommodate them nor could we without impairing service to our listeners. That we are not willing to do, absent some requirement imposed by the FCC. If the FCC should adopt restrictions on the digital operations of short-spaced stations once it issues its final digital audio broadcasting rules, we will of course comply with them.

You are always free to let the FCC know about the particular concerns facing KVMR. In that regard, however, you should be aware that, although KQEI has received authority to multicast, it is not using that authority and is only simulcasting its analog service on the digital signal. As a result, any limitations that might apply under the experimental STA granted for KQEI to multicast are not applicable to its current operations.

My client remains available to discuss with KVMR ideas to address its concerns, although at this juncture, KQED is not aware of any solution that will satisfy the needs of both stations.

Sincerely yours,



Theodore D. Frank
Counsel for KQED, Inc.

cc: Ms. Jo Anne Wallace
Margaret Berry, Esq.

CERTIFICATE OF SERVICE

I, Michael Couzens, certify that on April 12, 2006, a copy of the foregoing

COMPLAINT OF WIDESPREAD DESTRUCTIVE INTERFERENCE
FROM HYBRID IN-BAND / ON-CHANNEL DIGITAL RADIO

was mailed from Oakland California, with priority mail postage fully

prepaid, addressed as follows:

Theodore D. Frank
Arnold & Porter LLP
555 Twelfth Street NW
Washington, D.C. 20004-1206

Dated: April 12, 2006

